U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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CHROMIUM IN AUGUST 1997

Chromite consumption increased slightly in August 1997 compared with the previous month's data, according to the U.S. Geological Survey. Net production of chromium ferroalloys and metal in August 1997 decreased 5% compared with data for July 1997. Chromite stocks increased 9% over the same period. At the August rate of consumption, chromium stocks represented 6 months of domestic supply.

Included in this Mineral Industry Surveys are U.S. consumption and stocks of chromite; U.S. net production, net shipments, and stocks of chromium materials; U.S. Government inventory for August 1997; and foreign trade for July 1997.

Foreign trade data for August will appear in a subsequent issue.

Update:

On October 9, 1997, the Defense National Stockpile Center (DNSC) issued Amendment No. 006 to Solicitation of Offers DLA-Ferrochromium-001. This amendment describes the quantity, chemical specification, and location of 1,900 tons of high-carbon ferrochromium, 2,600 tons of low-carbon ferrochromium, and 1,300 tons of ferrochromium silicon available for sale from the National Defense Stockpile. For further information contact Rick Talbott at (703) 767-5497.

TABLE 1 U.S. SALIENT CHROMIUM STATISTICS 1/

(Metric tons, gross weight unless otherwise noted)

	1996			1997		
	JanDec.	June	2nd quarter	July	Aug.	Jan Aug.
Production:						
Chromium ferroalloys and metal: 2/						
Net production:						
Gross weight	36,800	5,810	16,900	6,180	5,890	42,500
Chromium content	26,400	3,880	11,200	4,160	3,960	29,000
Net shipments	38,800	6,750	18,100	6,440	6,640	46,200
Stainless steel production 3/	1,920,000	(4/)	510,000	NA	NA	996,000 5
Components of U.S. supply:						
Stainless steel scrap receipts	579,000	63,900	191,000	61,000 r/	56,900	485,000
Imports for consumption						
Chromite ore	250,000	3,210	35,300	3,960	NA	167,000 6
Chromium ferroalloys 7/	420,000 r/	55,000	126,000	37,600	NA	235,000 6
Chromium metals 8/	8,730	974	2,890	824	NA	6,010 6
Stainless steel	781,000	(4/)	510,000	NA	NA	510,000 5
Stainless steel scrap	50	NA	NA	NA	NA	NA
Distribution of U.S. supply:						
Consumption:						
Chromite ore	282,000	29,700	90,900	30,000	30,700	228,000
Chromium ferroalloys & metal	333,000	30,400	91,800	30,700	NA	213,000 6
Exports:						
Chromite ore	69,400	643	3,700	759	NA	13,400 6
Chromium ferroalloys	15,800	995	3,080	358	NA	5,890 6
Chromium metals	1,330	251	1,020	274	NA	1,670 6
Stainless steel	NA NA	NA	NA	NA	NA	NA
Stainless steel scrap	303	35	105	40	NA	208 6
Stocks at end of period:						
Industry:						
Chromite ore:						
Chemical and metallurgical	165,000	167,000	167,000	151,000	165,000	XX
Refractory	7,890	8,640	8,640	8,420	8,400	XX
Total	173,000	176,000	176,000	160,000	160,000	XX
Chromium ferroalloys and metal:						
Producer	6,450	3,770	3,770	3,520	2,760	XX
Consumer	27,600	20,700	20,700	20,800	NA	XX
Government stockpile:						
Chromite ore	1,190,000	1,140,000	1,140,000	1,140,000	1,220,000	XX
Chromium ferroalloys	1,050,000	1,020,000	1,020,000	1,020,000	1,020,000	XX
Chromium metals	7,720	7,720	7,720	7,720	7,720	XX

r/ Revised. NA Not available. XX Not applicable.

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Includes low- and high-carbon ferrochromium, chromium concentrates, ferrochromium, chromium metal, and other miscellaneous alloys.

^{3/} Data on stainless steel production from American Iron and Steel Institute, quarterly production of stainless and heat resisting raw steel.

^{4/} Not reported monthly.

^{5/} Includes data for January through June; July and August data not available at time of publication.

^{6/} Includes data for January through July; August data not available at time of publication.

^{7/} Includes high-, medium-, and low- ferrochromium and ferrochromium silicon.

^{8/} Includes waste and scrap and other.

 ${\bf TABLE~2} \\ {\bf U.S.~GOVERNMENT~STOCKPILE~INVENTORY~1/~OF~CHROMIUM~MATERIALS~2/}$

(Metric tons)

		Chromite ore	2	Chr	omium ferroalloy	Chromi	um metal	
				High-carbon	Low-carbon	Ferro-		
		Metal-		ferro-	ferro-	chromium	Alumino-	
Period	Chemical	lurgical	Refractory	chromium	chromium	silicon	thermic	Electrolytic
1996:								
August	220,000	655,000	322,000	738,000	283,000	52,900	2,670	5,020
September	220,000	647,000	322,000	734,000	283,000	52,700	2,670	5,050
October	220,000	645,000	322,000	732,000	283,000	52,700	2,670	5,050
November	220,000	645,000	322,000	725,000	283,000	52,700	2,670	5,050
December	220,000	645,000	322,000	718,000	283,000	52,700	2,670	5,050
1997:								
January	220,000	637,000	322,000	704,000	283,000	52,700	2,670	5,050
February	220,000	633,000	322,000	695,000	283,000	52,700	2,670	5,050
March	220,000	627,000	318,000	695,000	283,000	52,700	2,670	5,050
April	220,000	626,000	318,000	695,000	283,000	52,700	2,670	5,050
May	220,000	620,000	312,000	689,000	283,000	52,700	2,670	5,050
June	217,000	614,000	309,000	689,000	283,000	52,700	2,670	5,050
July	217,000	611,000	309,000	689,000	283,000	52,700	2,670	5,050
August	217,000	592,000	309,000	689,000	283,000	52,700	2,670	5,050

^{1/} Includes specification and non-specification grade materials and materials set aside for disposal but not yet shipped.

Source: Defense National Stockpile Center.

 ${\bf TABLE~3} \\ {\bf U.S.~EXPORTS~OF~CHROMITE~ORE,~CHROMIUM~FERROALLOYS~AND~METAL~1/}$

	Chrom	ite ore	Chi	romium ferroalloys	Chromium metal 3/		
	Gross		Gross	Chromium		Gross	
	weight	Value	weight	content	Value	weight	Value
Period	(metric tons)	(thousands)	(metric tons)	(metric tons)	(thousands)	(metric tons)	(thousands)
1996:		· · · · · · · · · · · · · · · · · · ·					
July	1,920	\$568	1,320	797	\$1,640	214	\$1,820
August	1,060	564	676	411	694	63	717
September	614	132	955	554	912	137	772
October	1,310	152	1,100	680	956	97	1,010
November	1,390	486	1,450	852	1,350	93	825
December	1,060	214	6,200	3,750	3,140	89	1,090
JanDec.	69,400	11,100	15,800	9,520	14,000	1,330	12,800
1997:	_						
January	1,540	364	635	405	718	60	600
February	5,930	977	975	609	1,160	142	1,120
March	1,480	487	841	527	939	180	1,260
April	1,830	376	1,060	561	1,300	379	2,610
May	1,230	237	1,020	585	1,030	387	2,820
June	643	131	995	589	1,090	251	1,840
July		222	358	220	387	274	1,900
Total	13,400	2,790	5,890	3,500	6,620	1,670	12,100

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Data are rounded to three significant digits.

^{2/} Includes low-, medium-, and high-carbon ferrochromium, and ferrochromium-silicon.

 $^{3/\}operatorname{Includes}$ wrought and unwrought and waste and scrap.

TABLE 4 U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND CHROMIUM METAL 1/

(Metric tons)

	1996		199	7	
	JanDec.	May	June	July	JanJuly
Chromite ore:					
Not more than 40% chromic oxide:					
Gross weight	8,030	40	162	162	6,180
Chromic oxide content	2,650	14	19	19	1,970
More than 40% but less than 46% chromic oxide:					
Gross weight	25,400	18			14,300
Chromic oxide content	11,100	8			6,560
46% or more chromic oxide:					
Gross weight	217,000		3,050	3,800	146,000
Chromic oxide content	102,000		1,430	1,750	68,600
Total, all grades:					
Gross weight	250,000	58	3,210	3,960	167,000
Chromic oxide content	116,000	22	1,450	1,770	77,100
Ferrochromium:					
Low-carbon: 2/					
Gross weight	60,700	10,100	5,100	6,750	45,000
Chromium content	38,400	6,770	3,250	4,660	29,600
Medium-carbon: 3/	_				
Gross weight	36	210		22	249
Chromium content	23	137		12	160
High-carbon: 4/					
Gross weight	359,000	20,500	49,900	30,800	190,000
Chromium content	207,000	12,800	26,000	18,400	108,000
Total, all grades					
Gross weight	420,000	30,800	55,000	37,600	235,000
Chromium content	246,000	19,700	29,200	23,100	138,000
Chromium metal:					
Other than waste and scrap	8,670	1,030	974	824	6,010
Waste and scrap	67	1		(5/)	3
Total, all grades	8,730	1,030	974	824	6,010

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Ferrochromium containing not more than 3% carbon.

^{3/} Ferrochromium containing more than 3% carbon but not more than 4% carbon.

^{4/} Ferrochromium containing more than 4% carbon.

^{5/} Less than 1/2 unit.

TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE IN JULY 1997, BY GRADE AND BY COUNTRY 1/

		July			January-July	
	Gross		_	Gross		
	weight	Cr2O3	Value 2/	weight	Cr2O3	Value 2/
Country	(metric tons)	(metric tons)	(thousands)	(metric tons)	(metric tons)	(thousands)
Not more than 40% chromic						
oxide:						
China				20	7	\$6
Philippines				5,780	1,910	1,050
South Africa	162	19	\$26	364	54	58
Venezuela				20	7	6
Total	162	19	26	6,180	1,970	1,120
More than 40% but less than						
46% chromic oxide:						
South Africa	<u> </u>			14,300	6,560	1,070
46% or more chromic oxide:	-					
Canada				13	6	5
Russia				22	261	117
South Africa	3,800	1,750	387	146,000	68,300	11,200
Total	3,800	1,750	387	146,000	68,600	11,400
Total, all grades:						
Canada				13	6	5
China				20	7	6
Philippines				5,780	1,910	1,050
Russia				22	261	117
South Africa	3,960	1,770	413	161,000	74,900	12,400
Venezuela				20	7	6
Total	3,960	1,770	413	167,000	77,100	13,500

^{1/} Data are rounded to three significant digits; may not add to totals shown.
2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

TABLE 6 U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN JULY 1997, BY GRADE AND BY COUNTRY 1/

		July			January-July	
	Gross	Chromium	17.1 0/	Gross	Chromium	77.1 2/
_	weight	content	Value 2/	weight	content	Value 2/
Country	(metric tons)	(metric tons)	(thousands)	(metric tons)	(metric tons)	(thousands)
High-carbon ferrochromium: 3/					_	
Canada				20	9	\$2
China	1,500	988	\$918	9,060	5,680	5,700
Croatia	5,400	3,450	3,140	8,400	5,450	4,380
India	1,940	1,210	1,260	11,200	6,970	6,840
Kazakstan				262	193	445
Russia				28,100	11,900	21,000
South Africa	8,100	4,100	3,490	54,400	25,500	22,000
Turkey				41,200	28,500	25,700
United Kingdom				79	54	58
Zimbabwe	11,400	7,130	7,320	35,000	22,100	21,100
Total	30,800	18,400	17,500	190,000	108,000	109,000
Medium-carbon ferrochromium: 4/						
Russia				210	137	240
Switzerland				17	11	16
United Kingdom	22	12	9	22	12	9
Total	22	12	9	249	160	265
Low-carbon ferrochromium: 5/						
China	476	322	372	2,440	1,610	2,810
Germany	1,840	1,300	5,230	7,500	5,260	19,700
Japan			5,250	281	102	520
Kazakstan				1,300	845	1,560
Macedonia	21	15	15	21	15	1,300
Russia	3,810	2,620	4,670	23,900	16,200	30,500
South Africa	122	2,020 68	121	7,400	4,180	5,760
Sweden	20	14	34	7,400	4,180	3,760
Turkey				100	73	164
Zimbabwe	460	313	513	2,020	1,350	2,400
Total	6,750	4,660	11,000	45,000	29,600	63,400
Total, all grades:						
Albania	2,510	1,520	1,350	2,510	1,520	1,350
Canada				20	9	2
China	1,980	1,310	1,290	11,500	7,290	8,510
Croatia	5,400	3,450	3,140	8,400	5,450	4,380
Germany	1,840	1,300	5,230	7,500	5,260	19,700
India	1,940	1,210	1,260	11,200	6,970	6,840
Japan				281	102	520
Kazakstan				1,560	1,040	2,000
Macedonia	21	15	15	21	15	15
Russia	3,810	2,620	4,670	52,200	28,200	51,800
South Africa	8,220	4,170	3,610	61,800	29,700	27,800
Sweden	20	14	34	20	14	34
Switzerland				17	11	16
Turkey				41,300	28,600	25,900
United Kingdom	22	12	9	101	66	23,700
Zimbabwe	11,800	7,440	7,840	37,100	23,500	23,500
Total	37,600	23,100	28,400	235,000	138,000	172,000

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

^{3/} Ferrochromium containing more than 4% carbon.

^{4/} Ferrochromium containing more than 3% but not more than 4% carbon.

^{5/} Ferrochromium containing not more than 3% carbon.

$\begin{tabular}{l} TABLE 7\\ U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN \\ JULY 1997, BY GRADE AND BY COUNTRY $1/$ \\ \end{tabular}$

	Jul	У	January	January-July		
	Gross weight	Value 2/	Gross weight	Value 2/		
Country	(metric tons)	(thousands)	(metric tons)	(thousands)		
Waste and scrap:						
Canada			3	\$14		
Japan	(3/)	\$7	(3/)	7		
Mexico				2		
Total	(3/)	7	3	23		
Other than waste and scrap:						
Belgium			18	115		
Bulgaria			80	276		
Canada			1	3		
China	249	1,640	1,510	9,000		
France		1,040	1,020	8,280		
Germany		39	30	406		
Greece			1	7		
Hong Kong		112	102	617		
Italy			1	14		
Japan		460	139	3,650		
Mexico		88	20	88		
Russia	179	937	2,100	13,000		
Spain			3	. 3		
Switzerland	(3/)	6	(3/)	30		
Taiwan			10	40		
United Kingdom	200	1,630	947	8,200		
Venezuela		·	(3/)	. 2		
Total	824	5,950	6,010	43,700		
Total, all grades:		·		·		
Belgium			18	115		
Bulgaria			80	276		
Canada			4	17		
China		1,640	1,510	9,000		
France	136	1,040	1,020	8,280		
Germany		39	30	406		
Greece			1	7		
Hong Kong		112	102	617		
Italy			1	14		
Japan		467	139	3,660		
Mexico		88	20	90		
Russia		937	2,100	13,000		
Spain			2,100	15,000		
Switzerland	(3/)	6	(3/)	30		
Taiwan			10	40		
United Kingdom	200	1,630	947	8,200		
Venezuela		1,050	(3/)	0,200		
Total	824	5,960	6,010	43,800		

^{1/} Data are rounded to three significant digits; may not add to totals shown.

^{2/} Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise into the United States. 3/ Less than 1/2 unit.